

ORGANIC SOLIDS REDUCTION AND ODOR CONTROL, Phase I

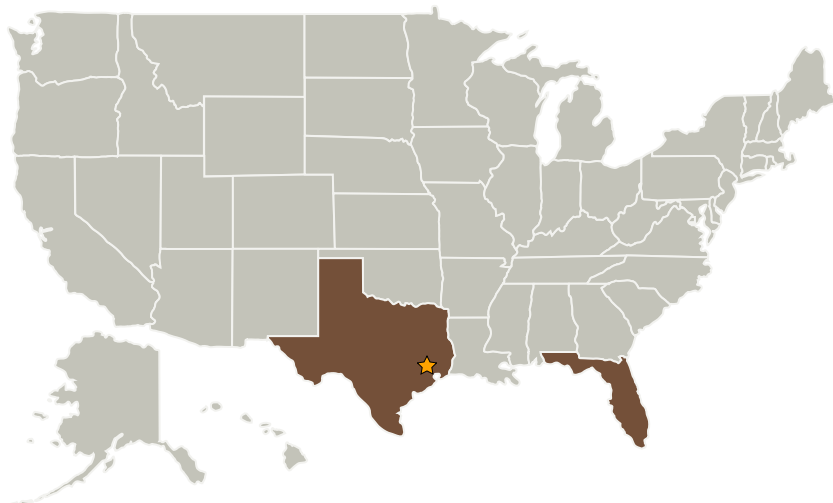
Completed Technology Project (2004 - 2005)



Project Introduction

We will rigorously document the mechanisms by which the OrTec biocatalyst can help solve the most pressing waste-management problems for the next-generation of long-term manned space missions. Based on preliminary results, integrating the OrTec biocatalyst into a biological treatment and recovery system could dramatically reduce the amount of required mass, power, volume, and crew time devoted to managing organic solids. At the same time, it can improve safety, reliability, and resource recovery. In this research, we will experimentally document the degree to which the OrTec biocatalyst enhances volume reduction, stabilization, water recovery, and odor control in the biological treatment of wet and dry solid wastes. This research will lay the foundation for research and development directed towards using the OrTec biocatalyst in the NASA space-mission environment. This research also will help advance the use of OrTec for achieving our society's environmental and sustainability goals beyond manned space flight.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
ORTEC, Ltd. Co.	Supporting Organization	Industry	Key Biscayne, Florida

Primary U.S. Work Locations	
Florida	Texas

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
 - └ TX06.1 Environmental Control & Life Support Systems (ECLSS) and Habitation Systems
 - └ TX06.1.2 Water Recovery and Management